

TITLE 7--AGRICULTURE

CHAPTER III--BUREAU OF ENTOMOLOGY AND PLANT QUARANTINE

PART 301--DOMESTIC QUARANTINE NOTICES

WHITE-FRINGED BEETLE

§ 301.72-5a Administrative instructions modifying white-fringed beetle quarantine regulations authorizing treatment of potting soil

Introductory note. Further experimental work by the Bureau of Entomology and Plant Quarantine of the United States Department of Agriculture indicates that complete mortality of the various stages of the white-fringed beetles (*Pantomorus leucoloma* Boh. and *P. peregrinus* Buch.), in potting soil, can be obtained by fumigating the soil at a dosage of 2 pounds of carbon disulphide per cubic yard. The instructions in Circular B. E. P. Q. 489, issued on January 28, 1939, which authorized treatment of potting soil either by fumigation with methyl bromide or by heating, as a prerequisite to certification are herein extended to provide that carbon disulphide fumigation may also be employed as a method of treatment of potting soil for control of the white-fringed beetles. The specifications for the two treatments formerly authorized are brought forward unchanged in the instructions which follow and this circular supersedes all instructions set forth in Circular B. E. P. Q. 489 dated January 28, 1939.

(a) Treatments authorized. Pursuant to the authority conferred upon the Chief of the Bureau of Entomology and Plant Quarantine by subsection (a) of § 301.72-5, Chapter III, Title 7, Code of Federal Regulations (Regulation 5 of Notice of Quarantine No. 72 on account of the white-fringed beetle) any one of the following methods of treatment for potting soil is hereby authorized when carried out under the supervision of an authorized inspector of the United States Department of Agriculture.

(b) Carbon disulphide fumigation. (1) Potting soil shall be treated in a container with carbon disulphide at a dosage of 2 pounds per cubic yard of soil for a period of 48 hours.

(2) The grade of carbon disulphide shall be comparable to U. S. P. grade having a specific gravity of 1.25 at 68° F.

(3) The container shall be tight, preferably lined with sheet metal, and shall have a tight cover or be covered with a tarpaulin immediately after the fumigant is applied. The container shall not be more than 36 inches deep.

(4) The soil shall be friable, and wet soil shall not be treated by this method. The fumigant shall be applied to the soil in holes 3 inches deep, the dosage to be evenly divided among holes 1 foot apart over the surface of the soil, and the fumigant shall be covered with soil as soon as it is applied.

(5) The temperature of the soil shall not be lower than 40° F. during the entire time of treatment.

(6) The condition of the soil and the apparatus used and the method of application of the fumigant must meet with the approval of an authorized inspector of the United States Department of Agriculture.

(c) Methyl bromide fumigation. (1) Potting soil must be treated in a container with methyl bromide in a dosage of 40 cubic centimeters of methyl bromide per cubic yard of soil for a period of 48 hours.

(2) The sides, bottom, and seams of the container shall be tight, preferably lined with sheet metal, and shall have a cover or be covered with a tarpaulin immediately after the fumigant is applied.

(3) The condition of the soil and the apparatus used and the method of application of the fumigant must meet the approval of an authorized inspector of the United States Department of Agriculture.

(d) Heat treatment. (1) Live steam, under pressure of 80 pounds or more per square inch, shall be applied through a grid of perforated pipes at the bottom of the sterilizing box or truck body containing the soil, for a period of 45 minutes or until all parts of the load reach a temperature of 200° F.

(2) The grids shall be constructed of 1-inch pipes, perforated with holes 1/32 inch in diameter on the upper side and connecting at one end to a manifold into which the steam is introduced.

(3) The layer of soil in the sterilizing box shall not be more than 2 feet, 6 inches deep.

(e) Disclaimer. In authorizing the movement of potting soil treated according to the requirements stated above, it is understood that no liability shall attach either to the United States Department of Agriculture or to any of its employees in the event of injury resulting from the use of these treatments.

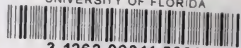
(f) Caution. (1) The vapor of carbon disulphide is inflammable and explosive. At a temperature of 297° F. it may take fire spontaneously and in the presence of certain metals, particularly copper, it may ignite at considerably lower temperatures. It must be kept away from fire, and from hot objects such as electric light bulbs, unprotected brush-type motors, steam pipes, etc. Lighted cigars, cigarettes, or pipes must never be brought near carbon disulphide.

Carbon disulphide is a blood poison, but poisoning by this chemical is rare. Exposure to the vapor may cause giddiness and headache. When these symptoms develop, the individual should get into the open air.

(2) Methyl bromide is a gas at ordinary temperatures. It is colorless and practically odorless in concentrations used for fumigation of plants. It is a poison, and the operator should use an approved gas mask when exposed to the gas at concentrations used in fumigation. After fumigation of potting soil by that method, the cover should be removed and the soil allowed to become aerated.

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